

EXPRESS MAIL NO.: EL750740746US

Docket No. 00-116-DSK

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*A2*  
1 CLAIMS:

2 What is claimed is:

3       1. A virtual stored data management system; the virtual  
4       stored data management system comprising:  
5               one or more hosts; and  
6               a plurality of data storage elements functionally  
7       coupled to the one or more hosts, wherein the plurality  
8       of data storage elements include a host network  
9       attachment, a data transfer system, a storage server  
10      and/or controller, and a permanent data storage media,  
11      wherein the permanent data storage media is organized  
12      with management information uniquely associated with  
13      units of data such that the management information may be  
      manipulated in several different locations within the  
      virtual stored data management system.

1       2. The virtual stored data management system as recited  
2       in claim 1, wherein manipulation of the data comprises  
3       allowing an internal process to discover a current  
4       location of a data processing function.

1       3. The virtual stored data management system as recited  
2       in claim 1, wherein manipulation of the management  
3       information comprises allowing the location of the

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4 manipulation of said management information to be changed  
5 as directed by a host.

1 4. The virtual stored data management system as recited  
2 in claim 1, wherein manipulation of the management  
3 information comprises allowing the location of the  
4 manipulation of said management information to be changed  
5 as directed by internal process.

1 5. The virtual stored data management system as recited  
2 in claim 1, wherein manipulation of the management  
3 information comprises allowing the location of the  
4 manipulation of said management information to be  
5 replicated as directed by a host.

1 6. The virtual stored data management system as recited  
2 in claim 1, wherein manipulation of the management  
3 information comprises allowing the location of the  
4 manipulation of said management information to be  
5 replicated as directed by internal process.

1 7. The virtual stored data management system as recited  
2 in claim 1, wherein manipulation of the management  
3 information comprises allowing for processing of the  
4 management information to be held consistent when  
5 completed in more than one place substantially  
6 simultaneously.

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1 8. The virtual stored data management system as recited  
2 in claim 1, wherein at least part of the management  
3 information manipulation is performed at a node in a  
4 connecting network.

1 9. The virtual stored data management system as recited  
2 in claim 1, wherein at least part of the management  
3 information manipulation is performed at a node in a  
4 storage server.

1 10. The virtual stored data management system as recited  
2 in claim 1, wherein at least part of the management  
3 information manipulation is performed at a node in a  
4 storage controller.

1 11. The virtual stored data management system as recited  
2 in claim 1, wherein at least part of the management  
3 information manipulation is performed at a node in a  
4 storage element.

1 12. The virtual stored data management system as recited  
2 in claim 1, wherein at least part of the management  
3 information associated with units of data is stored at a  
4 node in the storage media.

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1 13. The virtual stored data management system as recited  
2 in claim 12, wherein the storage media includes  
3 robotically controlled removable media.

1 14. The virtual stored data management system as recited  
2 in claim 12, wherein the storage media includes a newly  
3 acquired removable media.

1 15. The virtual stored data management system as recited  
2 in claim 1, further comprising:  
3 discovery means for discovering one or more of the  
4 plurality of storage elements.

1 16. The virtual stored data management system as recited  
2 in claim 15, wherein the discovery means work in parallel  
3 with management information processing.

1 17. The virtual stored data management system as recited  
2 in claim 1, wherein the manipulation of the management  
3 information comprises a change of location.

1 18. The virtual stored data management system as recited  
2 in claim 17, wherein the change of location includes a  
3 promotion toward a using host.

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1 19. The virtual stored data management system as recited  
2 in claim 17, wherein the change of location includes a  
3 demotion further from a using host.

1 20. The virtual stored data management system as recited  
2 in claim 1, further comprising:  
3       simultaneous processing of the management  
4 information at different layers of The virtual stored  
5 data management system.

1 21. The virtual stored data management system as recited  
2 in claim 1, further comprising:  
3       simultaneous processing of the management  
4 information at different units at the same layer of the  
5 virtual stored data management system.

1 22. The virtual stored data management system as recited  
2 in claim 21, further comprising:  
3       simultaneous processing of the management  
4 information at different layers and different units of  
5 the virtual stored data management system.

1 23. The virtual stored data management system as recited  
2 in claim 1, wherein manipulation of the management  
3 information comprises modification of the management  
4 information in several locations in the virtual stored  
5 data management system.